

21. Как изобразить на фотографии, что астронавт на Луне мало весит?

6-7 minutes

In September 1962, US President John F. Kennedy said publicly: **"We decided to conquer the moon, and in this particular decade . "**

True, there was really no reason for optimism. After the flight of Yuri Gagarin, only a year and 5 months passed, and American astronautics lagged far behind the successes of the Soviet Union.

By that time, the USSR had already completed a daily flight (German Titov), the first group flight of two ships (Vostok-3 and Vostok-4) had already passed with a record duration of 4 days in orbit, and the US astronauts had not yet crossed space orbit at 5 o'clock.

We do not know what the mood was in NASA in 1962, but by the mid-60s. the National Aeronautics Administration was well aware that the task of landing a man on the moon before the end of the decade was unrealistic. And she switched all her strength to how to simulate the landing on the moon in the pavilion. One of the tasks was how to portray by means of cinema that the astronaut on the moon weighs little.

Let's calculate how much an astronaut should weigh on the moon? The weight of the astronaut himself on Earth was about 77 kilograms (I take the weight of Neil Armstrong). The weight of the American spacesuit A7L for extravehicular activities is 91 kg. We get the total weight of a person with a spacesuit of 168 kilograms. On the Moon, all objects weigh 6 times less than on Earth. Accordingly, the weight of an astronaut in a spacesuit will decrease there to 28 kg.

If a person in a spacesuit with a total weight of 170 kg walked on the sand in the cinema pavilion, then, firstly, he would hardly move under such a weight, and, secondly, he would leave deep traces behind him. Therefore, all the spacesuits on the astronauts, both in the video and in the "lunar" photographs, are fake, and the life support backpacks behind their backs are empty boxes, closed with a plastic (or metal) case and covered with cloth. The same props were used in training. They were just dummies. If the satchel behind the back were really heavy (as it should be according to the official data of NASA, 63 kg), then with the astronaut's vertical position, the satchel would overturn it back.



The backpack behind his back is empty inside, so the astronaut can stand upright.

With a heavy knapsack, the astronaut had to walk like a man with a sack of potatoes behind his back, strongly tilting the body forward.



A man with a bag of potatoes behind his back tilts the body at an angle.

But we practically do not see such inclinations of the body in the "lunar" pictures.



In this position, the heavy knapsack was supposed to knock the astronaut back (Apollo 17).

In the videos, allegedly filmed on the moon, astronauts move upright, jumping, almost never leaning forward.

Both in the photographs and in the videos, the spacesuits are fake. But even in a fake spacesuit, the weight of an astronaut should be about 90 kg. The dynamics of movement of a 90-kilogram person does not correspond to a weight of 28 kg. Therefore, to make the astronauts' jumps on the "Moon" seem easier, the actors were hung on circus lounges.

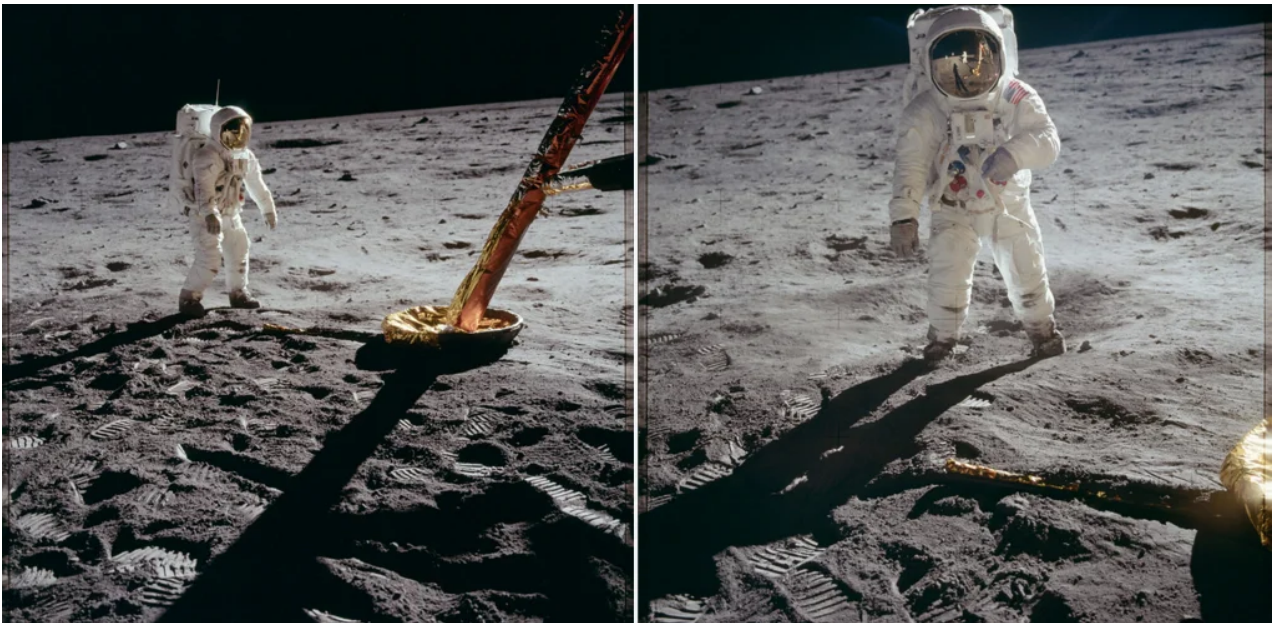
We wrote "actors" because we know that those world famous astronauts were not allowed to the "Moon". Tall, slender astronauts in the pavilion were portrayed by actors of small stature, 30-40 cm shorter than real prototypes. After all, dwarfs weigh much less.

But even dwarfs press on the ground more than a person weighing 28 kg. And then NASA came up with a cunning trick: instead of living astronauts when taking photos, use lightweight mannequins.



Installation of an astronaut dummy, he is below average height.

The mannequins will patiently wait, without moving, until they are filmed from the desired angle.



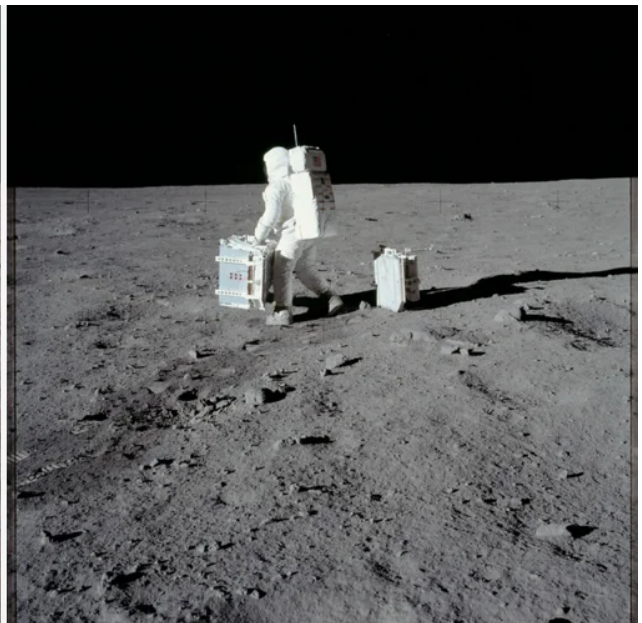
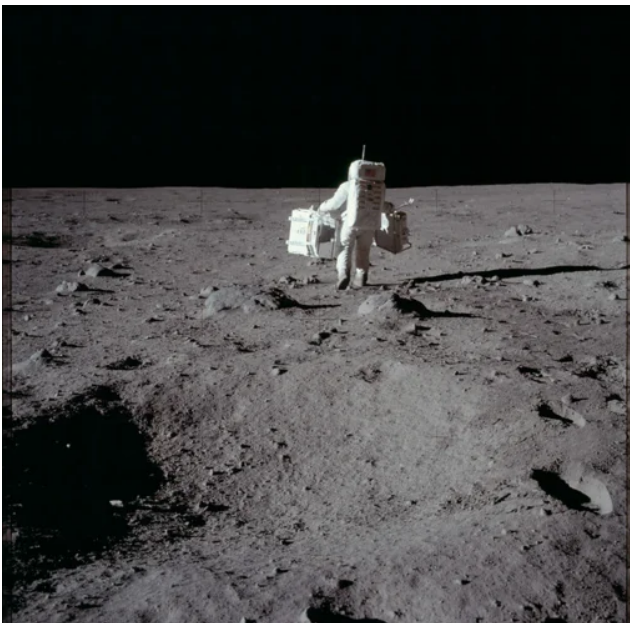
Dummies in the Apollo 11 mission.

Mannequins are always supported on two legs. Otherwise they will fall. They stand with their arms and legs spread out.



Mannequins are always supported on two legs.

In all "lunar" photographs, astronauts always lean on two legs and stand as if glued. Astronauts are photographed all the time, like a still life with stationary objects.



Astronauts are static all the time.

Among the thousands of pictures, you will not find a single one where an astronaut would be photographed in flight during a jump, for example, as in a simulator of lunar gravity on Earth.



This is what a jump looks like in a lunar gravity simulator.

And, most importantly, the mannequins are lightweight. They practically do not put pressure on the sand. The feet are not buried in the sand.

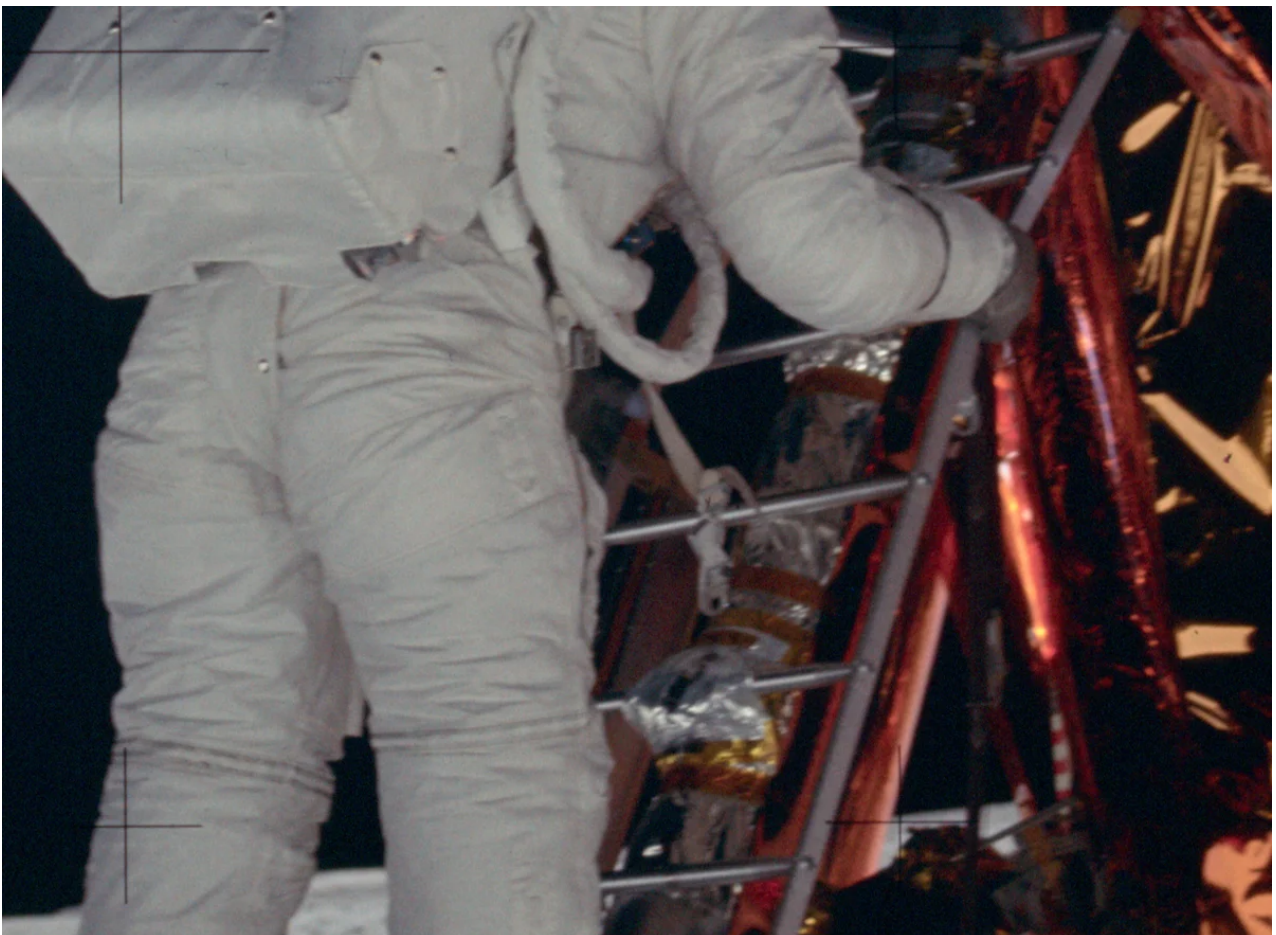


The feet practically do not sink into the sand.



Legs almost do not press on the sand.

This lightness just gives out that in front of us are mannequins. And so that the mannequins do not fall, they are sometimes tied, for example, as in the Apollo 11 mission - with straps to the steps of the stairs.



The mannequin is tied to the steps of the stairs.

This dummy is attached to the stairs instead of Base Aldrin. First they tied it to one rung, took a picture, moved it down, tied it to another rung of the ladder, and took another picture.



The Baz Aldrin dummy is tied to step 6 (left image) and to step 4 (right image) - if you count the steps from the bottom up.

Here's the key to how NASA photographers imitated the lightness of astronauts on the moon - using dummies. The mannequins were 30-40 cm shorter than living astronauts in height and weighed about 28 kg.

Sometimes you can notice in some pictures that sand is flying out from under one of the "astronaut's" legs, as if due to the push of the leg. How this was done if the dummy was stationary, we will describe in the next article.

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Cameraman L. Konovalov was with you.



Until next time!